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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/676,685	09/29/2000	Masashi Hamada	36409-00300	3465

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EXAMINER

MILLER, BRANDON J

ART UNIT	PAPER NUMBER
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2683

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Please find below and/or attached an Office communication concerning this application or proceeding.

38

Office Action Summary	Application No. 09/676,685	Applicant(s) HAMADA, MASASHI	
	Examiner Brandon J Miller	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>5</u> . | 6) <input type="checkbox"/> Other: |

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-4, 7-8, 11-16, 19, 22-24, and 26-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Alperovich.

Regarding claim 1 Alperovich teaches a wireless communication system having a wireless controller for controlling a wireless communication unit (see col. 3, lines 10-11 and FIG. 2). Alperovich teaches determining a situation within a wireless cell controlled by a wireless controller (see col. 3, lines 40-44). Alperovich teaches storing a threshold for changing a charge rate for communication within a wireless cell and a threshold having a hysteresis characteristic (see col. 3, lines 21-25 & 46-55). Alperovich also teaches deciding a charge rate for communication within a wireless cell, based on a situation determined and a threshold having

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a hysteresis characteristic stored in a memory (see col. 3, lines 40-45 & 53-55 and col. 4, lines 21-24).

Regarding claim 2 Alperovich teaches determining the remaining amount of wireless resources within a wireless cell (see col. 3, lines 40-44).

Regarding claim 3 Alperovich teaches determining the traffic volume within a wireless cell (see col. 5, lines 44-48).

Regarding claim 4 Alperovich teaches transmitting a charge rate decision using an informing signal, which a wireless controller transmits regularly to a wireless communication unit (see col. 3, lines 52-60 and FIG. 3).

Regarding claim 7 Alperovich teaches a management unit for managing a plurality of wireless controllers (see col. 3, lines 7-12 and FIG. 2).

Regarding claim 8 Alperovich teaches a wireless communication system having a wireless controller for controlling a wireless communication unit (see col. 3, lines 10-11 and FIG. 2). Alperovich teaches determining a situation within a wireless cell controlled by a wireless controller (see col. 3, lines 40-44). Alperovich teaches storing a threshold for changing a charge rate for communication within a wireless cell (see col. 3, lines 21-25 & 46-55). Alperovich also teaches transmitting a charge rate decision using an informing signal, which a wireless controller transmits regularly to a wireless communication unit (see col. 3, lines 52-60 and FIG. 3).

Regarding claim 11 Alperovich teaches a wireless communication system having a plurality of wireless controllers for controlling wireless communication units (see col. 3, lines 10-11 and FIG. 2). Alperovich teaches identifying a charge rate for communication within each

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wireless cell controlled by a plurality of wireless controllers (see col. 3, lines 41-50 and FIG. 2). Alperovich also teaches deciding a wireless controller to be connected to a wireless communication unit based on a charge rate notified by a wireless communication unit, a charge rate identifier, and controlling a connection to a wireless controller (see col. 4, lines 10-15 & 30-35).

Regarding claim 12 Alperovich teaches deciding on one or more controllers to be connected to a wireless communication unit (see col. 4, lines 34-43).

Regarding claim 13 Alperovich teaches identifying a charge rate based on a situation within a wireless cell (see col. 3, lines 40-44).

Regarding claim 14 Alperovich teaches a wireless communication unit for making communication in accordance with a charge rate notified by a wireless controller (see col. 3, lines 66-67 and col. 4, lines 1-4). Alperovich teaches storing a charge rate at which a communication is permitted (see col. 4, lines 6-9). Alperovich teaches receiving, from a wireless controller information regarding a charge rate for communication within a wireless cell controlled by a wireless controller (see col. 3, lines 32-40 & 53-57). Alperovich also teaches providing a display based on a received, stored charge rate (see col. 5, lines 3-8).

Regarding claim 15 Alperovich teaches displaying a charge rate when a charge rate received exceeds a charge rate stored in a memory (see col. 4, lines 22-24 and col. 5, lines 6-8).

Regarding claim 16 Alperovich teaches a device as recited in claim 15 and is rejected given the same reasoning as above.

Regarding claim 19 Alperovich teaches receiving a charge rate using an informing signal that is transmitted regularly to a wireless communication unit (see col. 3, lines 52-60 and FIG. 3).

Regarding claim 22 Alperovich teaches a device as recited in claim 13 and is rejected given the same reasoning as above.

Regarding claim 23 Alperovich teaches a wireless communication system having a wireless controller for controlling a wireless communication unit (see col. 3, lines 10-11 and FIG. 2). Alperovich teaches determining a situation within a wireless cell controlled by a wireless controller (see col. 3, lines 40-44). Alperovich teaches storing a threshold for changing a charge rate for communication within a wireless cell and a threshold having a hysteresis characteristic (see col. 3, lines 21-25 & 46-55). Alperovich also teaches deciding a charge rate for communication within a wireless cell, based on a situation determined and a threshold having a hysteresis characteristic stored in a memory (see col. 3, lines 40-45 & 53-55 and col. 4, lines 21-24).

Regarding claim 24 Alperovich teaches a wireless communication system having a wireless controller for controlling a wireless communication unit (see col. 3, lines 10-11 and FIG. 2). Alperovich teaches determining a situation within a wireless cell controlled by a wireless controller (see col. 3, lines 40-44). Alperovich teaches storing a threshold for changing a charge rate for communication within a wireless cell and a threshold having a (see col. 3, lines 21-25 & 46-55). Alperovich also teaches transmitting a charge rate based on a decided situation and threshold using an informing signal, which a wireless controller transmits regularly to a wireless communication unit (see col. 3, lines 40-45 & 52-60 and FIG. 3).

Regarding claim 26 Alperovich teaches a wireless communication system having a plurality of wireless controllers for controlling wireless communication units (see col. 3, lines 10-11 and FIG. 2). Alperovich teaches identifying a charge rate for communication within each

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wireless cell controlled by a plurality of wireless controllers (see col. 3, lines 41-50 and FIG. 2). Alperovich also teaches deciding a wireless controller to be connected to a wireless communication unit based on a charge rate notified by a wireless communication unit and a charge rate identifier and controlling a connection to a wireless controller (see col. 4, lines 10-15 & 30-35).

Regarding claim 27 Alperovich teaches a wireless communication unit for making communication in accordance with a charge rate notified by a wireless controller (see col. 3, lines 66-67 and col. 4, lines 1-4). Alperovich teaches storing a charge rate at which a communication is permitted (see col. 4, lines 6-9). Alperovich teaches receiving, from a wireless controller information regarding a charge rate for communication within a wireless cell controlled by a wireless controller (see col. 3, lines 32-40 & 53-57). Alperovich also teaches providing a display based on a received, stored charge rate (see col. 5, lines 3-8).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-6, 9-10, 20-21, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alperovich in view of Rieken.

Regarding claim 5 Alperovich teaches transmitting a charge rate decision using a communication information signal transmitted from a wireless controller to a wireless

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communication unit (see col. 3, lines 52-60, FIG. 3). Alperovich does not teach transmitting a communication information signal while a wireless communication unit is communicating via a wireless controller. Rieken teaches transmitting a flexible rate charging information signal while a wireless communication unit is communicating via a wireless controller (see col. 2, lines 23-27 and Fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Alperovich adapt to include transmitting a communication information signal while a wireless communication unit is communicating via a wireless controller because this would allow for flexible charging rates to be transmitted through a communication network while existing an existing connection exist.

Regarding claim 6 Alperovich teaches transmitting a charge rate added to accompanying control information included in a communication information signal (see col. 3, lines 55-60).

Regarding claim 9 Alperovich teaches a wireless communication system having a wireless controller for controlling a wireless communication unit (see col. 3, lines 10-11 and FIG. 2). Alperovich teaches determining a situation within a wireless cell controlled by a wireless controller (see col. 3, lines 40-44). Alperovich teaches storing a threshold for changing a charge rate for communication within a wireless cell. Alperovich also teaches transmitting a charge rate based on a determined situation using an informing signal transmitted from a wireless controller to a wireless communication unit (see col. 3, lines 41-44 & 52-60 and FIG. 3). Alperovich does not teach transmitting a communication information signal while a wireless communication unit is communicating via a wireless controller. Rieken teaches transmitting a flexible rate charging information signal while a wireless communication unit is communicating via a wireless controller (see col. 2, lines 23-27 and Fig. 2). It would have been obvious to one

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of ordinary skill in the art at the time the invention was made to make the Alperovich adapt to include transmitting a communication information signal while a wireless communication unit is communicating via a wireless controller because this would allow for flexible charging rates to be transmitted through a communication network while existing an existing connection exist.

Regarding claim 10 Alperovich and Rieken teach a device as recited in claim 6 and is rejected given the same reasoning as above.

Regarding claim 20 Alperovich teaches receiving a charge rate using a communication information signal transmitted from a wireless controller to a wireless communication unit (see col. 3, lines 41-44 & 52-60 and FIG. 3). Rieken teaches transmitting a flexible rate charging information signal while a wireless communication unit is communicating via a wireless controller (see col. 2, lines 23-27 and Fig. 2).

Regarding claim 21 Alperovich and Rieken teach a device as recited in claim 6 and is rejected given the same reasoning as above.

Regarding claim 25 Alperovich teaches a wireless communication system having a wireless controller for controlling a wireless communication unit (see col. 3, lines 10-11 and FIG. 2). Alperovich teaches determining a situation within a wireless cell controlled by a wireless controller (see col. 3, lines 40-44). Alperovich teaches storing a threshold for changing a charge rate for communication within a wireless cell. Alperovich also teaches transmitting a charge rate based on a determined situation using an informing signal transmitted from a wireless controller to a wireless communication unit (see col. 3, lines 41-44 & 52-60 and FIG. 3). Alperovich does not teach transmitting a communication information signal while a wireless communication unit is communicating via a wireless controller. Rieken teaches transmitting a

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flexible rate charging information signal while a wireless communication unit is communicating via a wireless controller (see col. 2, lines 23-27 and Fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Alperovich adapt to include transmitting a communication information signal while a wireless communication unit is communicating via a wireless controller because this would allow for flexible charging rates to be transmitted through a communication network while existing an existing connection exist.

Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alperovich in view of Hillis.

Regarding claim 17 Alperovich teaches a device as recited in claim 14 except for communication of a wireless communication unit that is inhibited when a charge rate received exceeds a charge rate stored in memory. Hillis teaches a user inhibiting communication of a wireless communication unit when a charge rate is received exceeds a charge rate stored (see col. 3, lines 65-68 & col. 4, lines 1-3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Alperovich adapt to include communication of a wireless communication unit that is inhibited when a charge rate received exceeds a charge rate stored in memory because this would allow for a user to respond to the transmission of real time information concerning the charge rate of a communication service.

Regarding claim 18 Hillis teaches communication that is compulsorily enabled by performing a predetermined operation of a wireless communication unit even when communication is inhibited (see col. 4, lines 4-9).

Conclusion

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Korpela U.S. Patent No. 6,311,054 discloses a method to determine charging information in a mobile telecommunications system and a mobile station.

Beddoes European Patent Publication No. 0 597 638 A1 discloses a radio telecommunication systems and methods.

Kaku European Patent Publication No. 0 920 177 A2 discloses a charging method and system for radio communication.

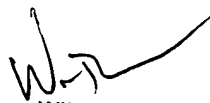
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J Miller whose telephone number is 703-305-4222. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



September 20, 2002



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